MITIGATION IN SOUTH CAROLINA

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AGENDA

- Define compensatory mitigation
- Discuss the 2008 Mitigation Rule
  - Mitigation Hierarchy
- Identify the 12-components of a mitigation plan for Permittee Responsible Mitigation and Mitigation Banks

Memoranda of Agreement (MOA) on Mitigation

"The Corps will strive to avoid adverse impacts and offset unavoidable adverse impacts to existing aquatic resources, and for wetlands, will strive to achieve a **goal of no overall net loss of functions and values**." (1990 EPA/Army MOA)

MOA Sequencing

AVOIDANCE

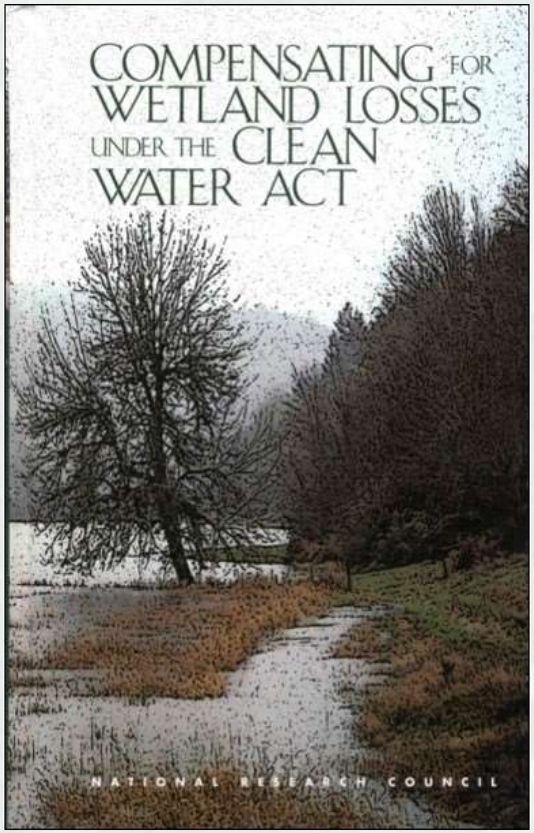
MINIMIZATION

COMPENSATION

Regulations Pertaining to Corps Mitigation

- 33 CFR 320.4(r) - General Mitigation Policy
- 33 CFR 325.4 - Implementation Guidance
- 40 CFR 230, Subparts B and H - 404(b)(1)
- 40 CFR 1508 – NEPA
- **33 CFR 332 - <u>Compensatory Mitigation for Losses of Aquatic Resources</u>**

National Research Council (NRC) 2001 Report



- 1999 - USEPA requests NRC evaluation of the ability of mitigation to restore functions and evaluate options to improve mitigation effectiveness
- 2001 – NRCS releases a comprehensive analysis of the effectiveness of mitigation under Sec 404 of the Clean Water Act
  - Includes specific recommendations for effective replacement of lost wetland functions.

National Research Council Recommendations

- Site selection should be done on a watershed scale
- Incorporate hydrological variability into wetland mitigation design and evaluation
- Mitigation projects should be planned and measured by a broader set of wetland functions
- It is important to incorporate monitoring and adaptive management into mitigation plans
- Responsibility and oversight
- Third-party offers advantages over permittee-responsible mitigation

2008 Mitigation Rule Development

Events leading to the 2008 Mitigation Rule

1999 – USEPA/Corps seek NRC study

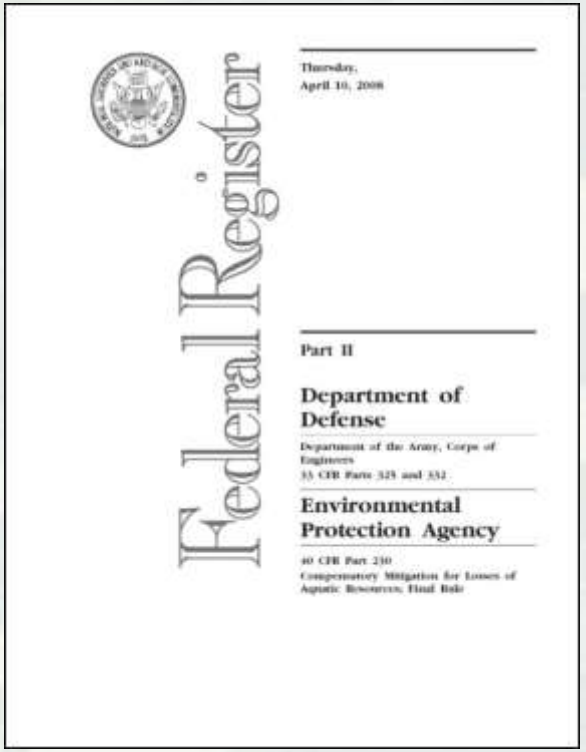
2001 – NRC study published

11/2003 – Congressional directive (NDAA 2004)

3/28/2006 – Proposal in Federal Register

4/10/2008 – Final Rule in Federal Register
(Revisions to 33 CFR Parts 325 and 332)

6/09/2008 – Effective date of rule



2008 Mitigation Rule Overview

Applies to compensatory mitigation for Corps permits

- Sustainable compensatory mitigation

Provides performance standards and requirements for compensatory mitigation

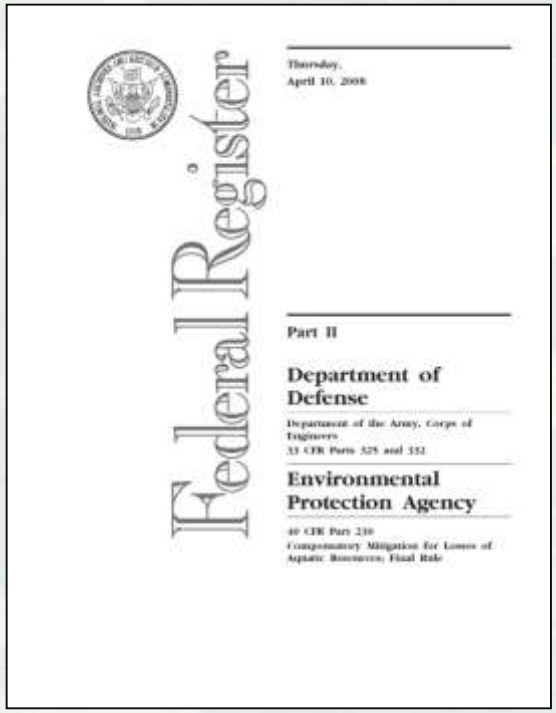
- Equivalent and effective standards

Includes where and how compensatory mitigation is to be done

- Use of best available science
  (Addresses all applicable NRC recommendations).

Supersedes most previous mitigation guidance

Provides guidance for the Interagency Review Team (IRT)



South Carolina IRT

The IRT consists of multiple agencies including members from:

- Federal Agencies: USACE (Corps), USEPA, USFWS, NMFS-NOAA
- State Agencies: SCDNR, DHEC-BOW, DHEC-OCRM, SHPO, SCFC

- Corps serves as the IRT Chair RIBITS houses information on all mitigation projects
  https://ribits.usace.army.mil/
- The IRT attempts to hold meetings every 4-weeks. The meeting schedule can be found on the Corps website at:
  http://www.sac.usace.army.mil/

Preference Hierarchy for Mitigation

Mitigation Credit: "A unit of measure representing the accrual or attainment of aquatic functions at a compensatory mitigation site."

Mitigation Debit: "A unit of measure representing the loss of aquatic functions at an impact or project site."

(33 CFR 332.3(b))

- Mitigation bank credits
- In-lieu fee program credits
- Permittee-responsible mitigation under a watershed approach
- Permittee-responsible mitigation through on-site and in-kind mitigation
- Permittee-responsible mitigation through off-site and/or out-of-kind mitigation

Level of Detail For Mitigation Plans

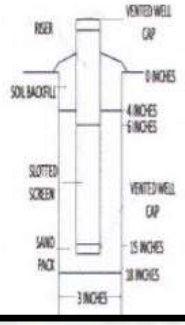
- Commensurate with scale and scope of the impacts
- Influenced by
  - Degree of risk and uncertainty
  - Mitigation type
  - Mitigation hierarchy

Well Identification Code: #9
A map of project, showing well locations and significant topographic and hydrologic features is attached.

Type of Instrument
Source of instrument / well stock: Remote Data Systems Inc.
Material of well stock: Schedule 40 PVC — Diameter of pipe: 1 inch
Slot size: 0.010 Inch — Slot spacing: .1875 inch
Kind of well cap: PVC with vent — Kind of well point plug:

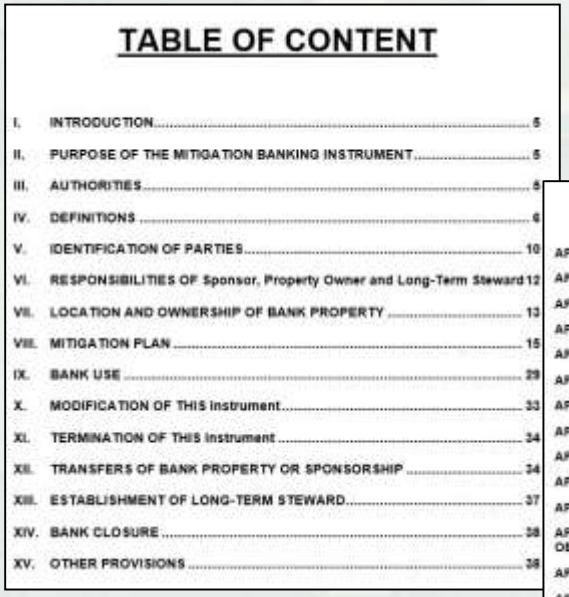
Nature of Installation Materials
Nature of packing sand: 20 – 40 silica — Kind of bentonite: N/A
Nature of backfill: Soil mix — Depth of backfill: 6 inches to ground surface
Was bentonite installed below groundwater depth at installation? No
Was water added to bentonite for expansion? N/A
Method of measuring water levels in instrument: Water level sensor
Was instrument checked for clogging after installation? Yes
Distance from calibration point to ground level: 1 inch

Soil Characteristics

Instrument Diagram	Depth (inches)	Texture	Munsell soil color	Roots	Consistency	Redox Features
	0 - 5	FSL	10YR 2/1	Many Fine	Friable	None
	5 - 8	LS	10YR 7/1	Few Fine	Friable	None
	8 - 22	SL	10YR 5/6	Few Medium	Friable	Many 10YR 7/1
	22 - 38	SL	10YR 6/1	Few Medium	Friable	Common 10YR 5/6

Mitigation Plan Components

1. Objectives
2. Site Selection
3. Site Protection Instrument
4. Baseline Information
5. Determination of Credits
6. Mitigation Work Plan
7. Maintenance Plan
8. Performance Standards
9. Monitoring Requirements
10. Long-term Management Plan
11. Adaptive Management Plan
12. Financial Assurances



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LIST OF APPENDICES

1. Objectives

- Provide a description of the resource type(s) and amount(s) that will be provided
- Describe method of compensation (i.e., restoration, enhancement, establishment, and/or preservation)
- Describe how mitigation proposal will support needs of the watershed

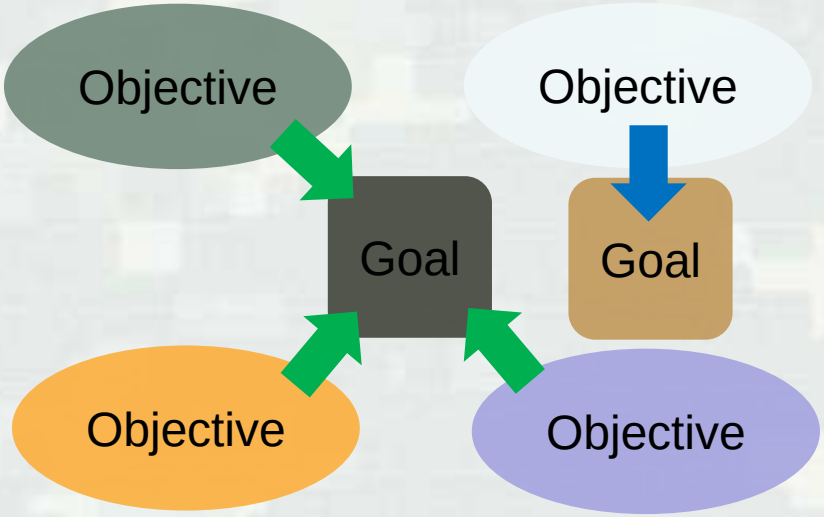
Goal - A goal identifies what the mitigation project is trying to accomplish, i.e. what the end product will be.

Objectives - Objectives identify specific elements that are undertaken to meet the goals of the project. They provide more detail on how each goal will be achieved. One goal may have several objectives, but each objective is tied to a particular goal.

1. Objectives continued

Project goal(s) should be clearly defined, providing intended results of the proposed mitigation project in terms of aquatic ecosystem functions and hydrologic conditions within a watershed context.

Project objectives should be clearly defined and include a list of specific, measurable outcomes of the mitigation activities that can be used to demonstrate whether or not the goals of the mitigation plan have been achieved.



When listing the specific elements of the objectives, if more than one goal has been identified, please indicate which goal each element is tied to.

Goal/Objective Example

Goal:
The overall goal of the mitigation plan is to restore native vegetative communities and improve wetland (hydrologic) functionality within the project's boundaries.

Examples of Objectives that correspond with the Goal:
Re-establish native salt marsh vegetation in areas previously filled with spoil material.
Restore historic land surface elevations to promote the establishment of salt marsh vegetation.
Re-establish native salt marsh vegetation in areas previously filled with spoil material.
Limit the presence of non-native and invasive species.

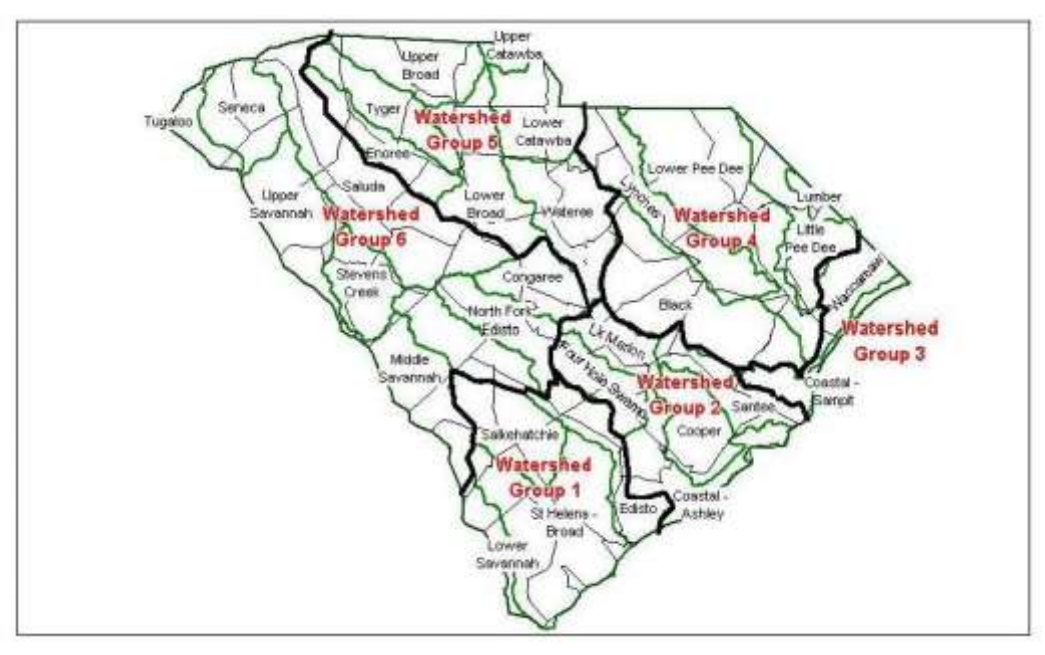
Objectives: Weak Example

"The objective of the bank is to enhance upland habitat for the Red Cockaded Woodpecker by re-establishing Longleaf Pine."

2. Site Selection (Location - Location)

Factors to address include:

- Landscape position
- Ecological suitability for providing aquatic resource functions
- Watershed needs
- Hydrological conditions
- Compatibility with adjacent land



Site Selection Criteria

Site selection criteria: Strong	Site selection criteria: Weak
The project site was selected based upon its proximity to (name), a significant water.	The project site was selected because it is already owned by Sponsor/Owner.
The adjacency of the project site to existing conservation lands (include the name).	The adjacency of the project to a landfill.
Restoration of headwater streams.	Restoration of a stream that is located between two retention ponds.
Land in danger of being developed.	Land with existing easements.

3. Site Protection Instrument

- Describes legal arrangements and proposed instrument, including site ownership, that will be used to ensure long-term protection of the mitigation site
- Long-term protection may be provided through real estate instruments such as conservation easements

Save time by using the

SAC Conservation Easement Model

Charleston District Conservation Easement Model of September 2010
See http://www.sac.usace.army.mil for latest edition of this model.

STATE OF SOUTH CAROLINA CONSERVATION EASEMENT AND ACCEPTANCE

COUNTY OF _____

THIS INDENTURE, is made this ____ day of _____, 20____, by and between _____ ("Grantor(s)"), of _____, South Carolina, and _____ ("Grantee(s)"), of _____, South Carolina.

WHEREAS, Grantor is the owner in fee simple of certain real property *["real property" includes surface waters and wetlands; any interest in submerged lands, uplands, accretions and riparian/littoral rights]* located in _____ County, South Carolina, more particularly described *[description of tract must include: 1) acreage, and 2) reference the surveyed plat(s) required below]* ("Protected Property");

WHEREAS, Grantor desires to convey to the Holder a conservation easement placing certain limitations and affirmative obligations on the Protected Property for the protection of wetlands, scenic, resource, environmental, and other values, and in order that the Protected Property shall remain substantially in its natural condition forever;

WHEREAS, Holder is qualified to hold a conservation easement, and is either

(a) a governmental body empowered to hold an interest in real property under the laws of this State or the United States; or

(b) a charitable, non-for-profit or educational corporation, association, or trust *[, qualified under § 501(c)(3) and §170 (h) of the Internal Revenue Code]*, the purposes or powers of which include one or more of the purposes (a) - (d) listed below;

(a) retaining or protecting natural, scenic, or open-space aspects of real property;
(b) ensuring the availability of real property for recreational, educational, or open-space use;
(c) protecting natural resources;
(d) maintaining or enhancing air or water quality.

WHEREAS, Grantor and Holder agree that third-party rights of enforcement shall be held by the U.S. Army Corps of Engineers, Charleston District and the S.C. Department of Health and Environmental Control ("Third-Parties," to include any successor agencies), and may be exercised through the appropriate enforcement agencies of the United States and the State of South Carolina, and that these rights are in addition to, and do not limit, the rights of enforcement under Department of the Army permit number _____ or any permit or certification issued by the Third-Parties.

[Insert for approved mitigation banks: WHEREAS, the Protected Property has been approved by the Third-Parties for use as a mitigation bank, to be known as _____ Mitigation Bank;]

COVENANTS, TERMS, CONDITIONS, AND RESTRICTIONS

A. PURPOSE

1. The purpose of this Conservation Easement is to ensure the Property will be preserved in a "Natural Condition", as defined herein in perpetuity and to prevent any use of the Property that will materially impair or interfere with the Conservation Values of the property (the "Purpose"). Grantor intends that this Conservation Easement will confine the use of the Property to such activities, including without limitation, those involving the restoration, enhancement, and/or preservation of aquatic resources in a manner consistent with the conservation purposes of this Conservation Easement.

2. The term "natural condition," as referenced in the preceding paragraph and other portions of this conservation easement, shall mean the condition of the property, as it exists at the time this Conservation easement is executed, as well as future restoration, enhancement, or other changes to the property that occur directly as a

Page 1 of 10
Charleston District Conservation Easement Model of September 2010

Site Protection Instrument ISSUES

- Sponsors not wanting to use the SAC conservation easement model: Sponsors are encouraged to notify the IRT that you want to modify the language of the template early on in the review process.
- Suggesting a use not conducive to ecological success of the bank.
  - *"Grantors Reserved Rights 1. Recreation. Grantor reserves the right to engage in any outdoor activities including the establishment of Off Road Vehicle (ORV) Trails, establishing food plots, and construction of deer stands."*
  - *"Grantors Reserved Rights 2. Agricultural and Forest Management. Grantor reserves the right to continue silviculture activities and livestock grazing."*
- Selection of an inappropriate 3rd Party Easement Holder. The 3rd party easement holder and the long-term manager should be separate entities.

4. Baseline Information

Description of impact and mitigation sites:

- Historic and existing ecological conditions
- Historic and existing hydrology
- Historic and existing plant communities
- Soil conditions
- Vicinity map(s)/Location Map(s)
- Jurisdictional delineation

** If using a mitigation bank/in-lieu fee, only need information for the impact site*

Baseline Information ISSUES

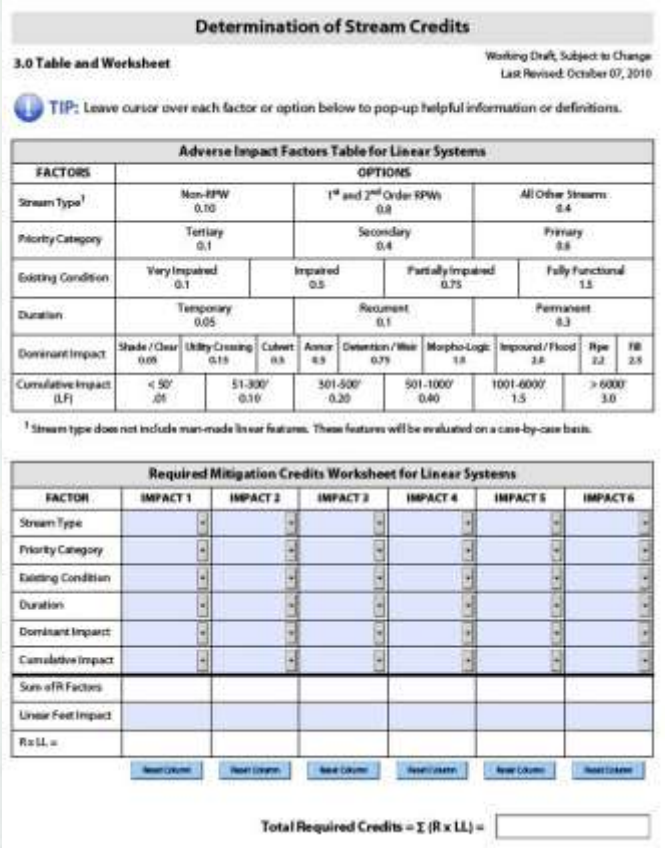
- Missing Baseline Data or not discussing current conditions of the site
- Missing historic information on past use of site: including aerials, maps, etc.
- Methods of gathering baseline data are different from monitoring requirements
  - consistency is extremely important
- Existing Hydrology is not properly documented:
  - 1-year of baseline data for streams and
  - 2-years of data for hydrologic enhancement of wetlands
- When the Baseline Data does not show a need for restoration or already shows that the bank meeting success

5. Determination of Credits

Utilize the *Guidelines for Preparing a Compensatory Mitigation Plan* Credit Calculations.

Describe the number of credits (functional lift) to be provided and rationale:

- If using mitigation bank, identify the number and type of credits needed, and how determined.
- If the applicant is proposing permittee-responsible mitigation, there must be an explanation based on functional assessment of how the proposed mitigation would compensate for the proposed impacts.



Determination of Stream Credits

3.0 Table and Worksheet

Working Draft, Subject to Change
Last Revised: October 07, 2010

TIP: Leave cursor over each factor or option below to pop-up helpful information or definitions.

Adverse Impact Factors Table for Linear Systems

FACTORS	OPTIONS									
Stream Type[1]	Non-RPW 0.10			1st and 2nd Order RPWs 0.8			All Other Streams 0.4			
Priority Category	Tertiary 0.1			Secondary 0.4			Primary 0.8			
Existing Condition	Very Impaired 0.1		Impaired 0.5		Partially Impaired 0.75		Fully Functional 1.5			
Duration	Temporary 0.05			Recurrent 0.1			Permanent 0.3			
Dominant Impact	Shade / Clear 0.05	Utility Crossing 0.15	Culvert 0.5	Armor 0.9	Detention / Weir 0.75	Morpho-Logic 1.0	Impound / Flood 2.0	Pipe 2.2	Fill 2.5	
Cumulative Impact (LF)	< 50' .01	51-300' 0.10		301-500' 0.20	501-1000' 0.40		1001-6000' 1.5	> 6000' 3.0		

[1] Stream type does not include man-made linear features. These features will be evaluated on a case-by-case basis.

Required Mitigation Credits Worksheet for Linear Systems

FACTOR	IMPACT 1	IMPACT 2	IMPACT 3	IMPACT 4	IMPACT 5	IMPACT 6
Stream Type						
Priority Category						
Existing Condition						
Duration						
Dominant Impact						
Cumulative Impact						
Sum of R Factors						
Linear Feet Impact						
R x LL =						

Total Required Credits = Σ (R x LL) =

Determination of Credits ISSUES

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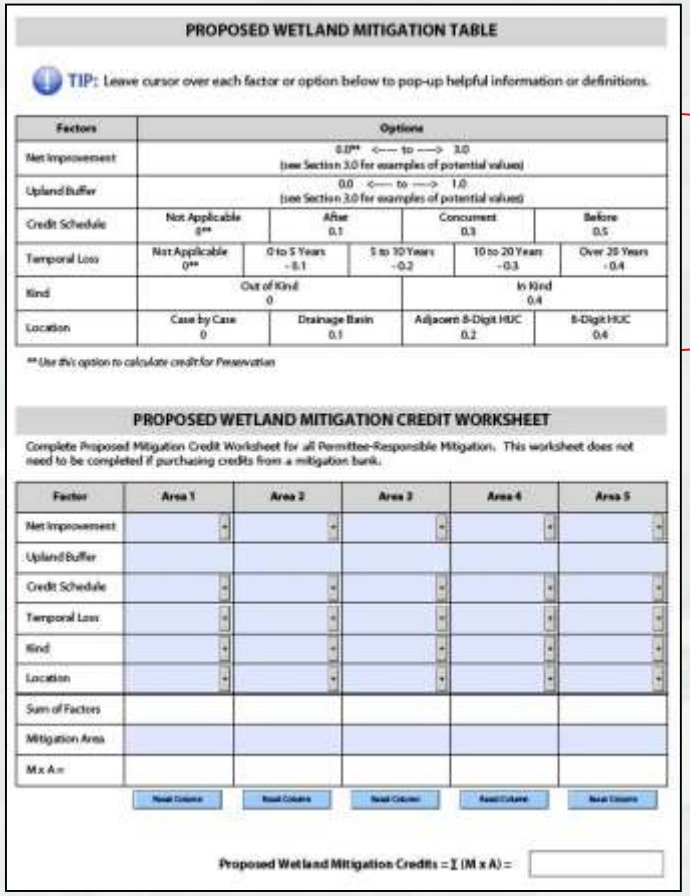


PROPOSED WETLAND MITIGATION TABLE

TIP: Leave cursor over each factor or option below to pop-up helpful information or definitions.

Factors	Options				
Net Improvement	0.0** <—— to ——> 3.0 (see Section 3.0 for examples of potential values)				
Upland Buffer	0.0 <—— to ——> 1.0 (see Section 3.0 for examples of potential values)				
Credit Schedule	Not Applicable 0**	After 0.1		Concurrent 0.3	Before 0.5
Temporal Loss	Not Applicable 0**	0 to 5 Years - 0.1	5 to 10 Years - 0.2	10 to 20 Years - 0.3	Over 20 Years - 0.4
Kind	Out of Kind 0			In Kind 0.4	
Location	Case by Case 0	Drainage Basin 0.1		Adjacent 8-Digit HUC 0.2	8-Digit HUC 0.4

** Use this option to calculate credit for Preservation

PROPOSED WETLAND MITIGATION CREDIT WORKSHEET

Complete Proposed Mitigation Credit Worksheet for all Permittee-Responsible Mitigation. This worksheet does not need to be completed if purchasing credits from a mitigation bank.

Factor	Area 1	Area 2	Area 3	Area 4	Area 5
Net Improvement					
Upland Buffer					
Credit Schedule					
Temporal Loss					
Kind					
Location					
Sum of Factors					
Mitigation Area					
M x A =					

Proposed Wetland Mitigation Credits = Σ (M x A) =

Factors	Options				
Net Improvement	0.0** <—— to ——> 3.0 (see Section 3.0 for examples of potential values)				
Upland Buffer	0.0 <—— to ——> 1.0 (see Section 3.0 for examples of potential values)				
Credit Schedule	Not Applicable 0**	After 0.1		Concurrent 0.3	Before 0.5
Temporal Loss	Not Applicable 0**	0 to 5 Years - 0.1	5 to 10 Years - 0.2	10 to 20 Years - 0.3	Over 20 Years - 0.4
Kind	Out of Kind 0			In Kind 0.4	
Location	Case by Case 0	Drainage Basin 0.1		Adjacent 8-Digit HUC 0.2	8-Digit HUC 0.4

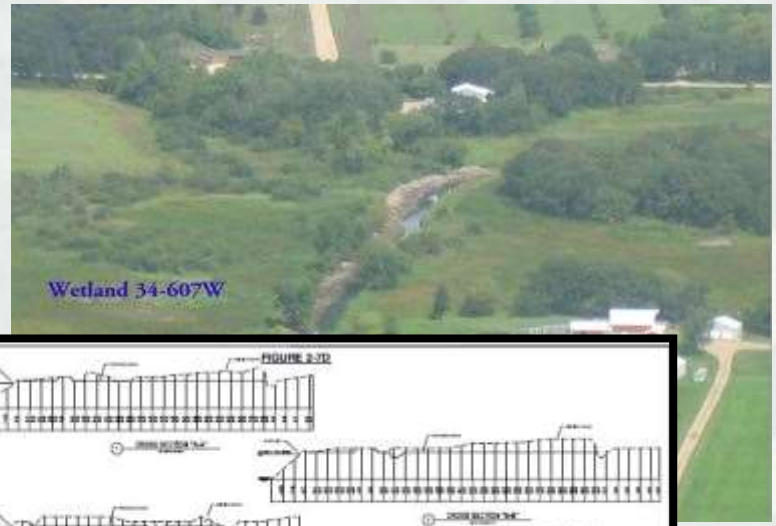
** *Use this option to calculate credit for Preservation*

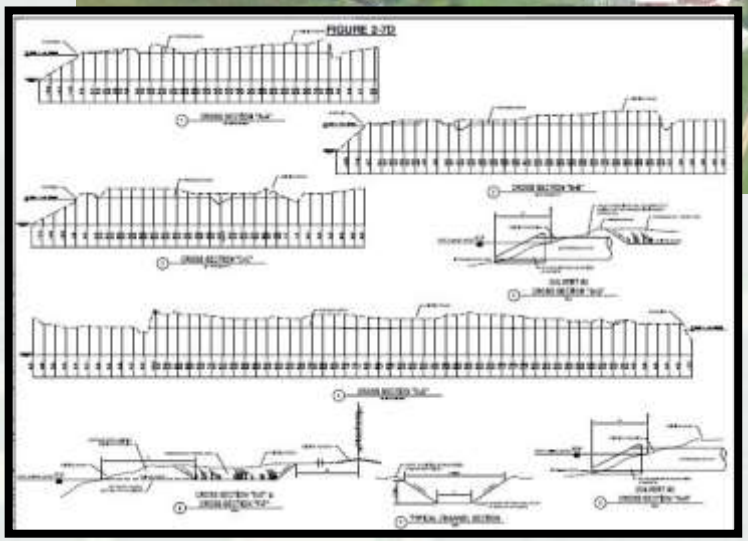
- Using inappropriate Net Improvement (NI) factors.
- "Double dipping" for streams, wetlands, and/or associated buffers.

6. Mitigation Work Plan

Should include:

- Construction methods and timing
- Sources of water
- Method for establishing desired plant community
- Invasive/exotic species control
- Soil management, grading, erosion control (best management practices)





Mitigation Work Plan issues

- Lack of drawings, cross-sections, plan views, aerials, vicinity, location maps, etc.
- Missing description of construction methods including removal of existing structures.
- Missing planting plan including species, quantity, plan view, etc.
- Lack of appropriate stream information i.e. channel form, design discharge, etc.

7. Maintenance Plan

A description and schedule of maintenance requirements to ensure the continued viability of the resource once initial construction is completed:

- Prescribed fire management
- Weed/invasive species control
- Trash pick-up
- Fencing
- Trespass
- Etc.

Maintenance Plan issues

- Plan lacks invasive/nuisance species control plan
- Assumption that structures will not require maintenance
- Use of unsustainable methods
- Inadequate Funding

Maintenance Plan: weak

"While Chinese Tallow (*Tradica sebifera*) may occur in patches onsite, this species is restricted to a small area of the bank. No maintenance or removal of this species is proposed."

8. Performance Standards

- Should include ecologically-based standards that will be used to determine if the mitigation project is achieving objectives
- Should be objective, verifiable and based on best available science
- May entail use of reference aquatic resource sites and/or functional assessments
- Should illustrate the mitigation is treading toward success.

Type of Stream (mitigation proposed) Criterion	Level 1	Level 2	Level 3	Level 4	Level 5
Stream experienced a bank full event					
Bank has stable dimension, profile, and pattern: comparable to as-built					
Bank height ratio					
Entrenchment Ratio					
Meander width ratio					
Hydrologic enhancement construction has been successfully completed and there is no evidence of harmful erosion or indication or unnatural channelized flow	Yes	Yes	Yes	Yes	Yes
Increase is fish/macroinvert. diversity or IBI Score	Number	Number	Number	Number	Number
NOTE: (Definitions pulled from main document)					

Community type (mitigation proposed) Criterion	Level 1	Level 2	Level 3	Level 4	Level 5
Canopy % composition target species	Number or range	Number or range	Number or range	Number or range	Number or range
No one species of trees dominates	Percent	Percent	Percent	Percent	Percent
% target species > or = 20' in height	Percent	Percent	Percent	Percent	Percent
Average target trees/acre	range	range	range	range	range
Average maximum height trees/acre over 15'	number	number	number	number	number
Volunteer species	Percent or range	Percent or range	Percent or range	Percent or range	Percent or range
Evidence of appropriate wildlife use	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
Planted trees showing consistent increase in Height, lateral growth, and root collar diameter					
Exotic and Nuisance Species % cover/acre	Percent	Percent	Percent	Percent	Percent
Mitigation Bank is in compliance with all permit conditions	Yes	Yes	Yes	Yes	Yes
Years of monitoring since construction completion with monitoring reports submitted in accordance with the permitted monitoring plan	1	2	3	4	5
Hydrologic monitoring data demonstrates that stages and hydroperiods are appropriate for the target community; new or persistent indicators of hydrologic stress (TYPES OF STRESS SHOULD BE DISCUSSED IN THE MAIN DOCUMENT AND THE SECTION REFERENCED HERE) are not visible.	agree	agree	agree	agree	agree
NOTE: (Definitions pulled from main document)					
Target Species (canopy)	List species:				
Target Wildlife	List species:				
Shrub/subcanopy % composition target species	List species:				
Hydrologic Metrics					

- **Description**: size, classification (HGM, Cowardin, Rosgen), jurisdiction.
- **Hydrology**: duration, periodicity.
- **Soils**: hydric soil indicators, constituents, structure.
Vegetation: dominants, density, species composition, structure, species diversity.
- **Stream**: sinuosity, sediment particle size, cross-section, bank stabilization, bankfull width.

Performance Standards Issues

- The site is already meeting Performance Standards OR the Performance Standards not appropriate to meet the objective
- Performance Standards are NOT measurable or attainable

Year 5

Baseline

Performance Standards Issues:

Performance Standards Weak:	Performance Standards Solid:
Vegetation will be similar to that of the reference site.	Percent cover of trees. No one species should not be greater than 25% coverage.
Hydrology well data will show site is wetter than baseline.	Number of days/year water is present at surface.
Stems must meet the following conditions: Stem height for planted species must be 8-inches, root collar width of approximately 2-inches with density of 270 stems /acre.	Trees/stems should show an incremental increase leading to success.

9. Monitoring Requirements

Regulatory Guidance Letter 08-03
33 CFR Part 332

Mitigation plan must address monitoring requirements:

- Parameters to be monitored
- Length of monitoring
- Parties responsible for monitoring
- Report submittal frequency
- Content and detail of monitoring reports is commensurate with scale and scope of mitigation
- Minimum of 5 years
  - Should be longer if slow development rates (forested)
  - Extend if standards not met

Monitoring report includes: as-built plans, maps/figures, photographs, functional assessment results

Monitoring Requirements Issues

- Data provided is not tied to Performance Standards
- The mitigation plan does not state when the Monitoring Reports are due (spring/fall/month/date)
- Monitoring Reports are not submitted on time
- Missing a discussion of the area as a whole, the challenges faced between the last monitoring event, actions taken to remedy any issue(s), and tables comparing the previous data to current data.

10. Long-Term Management (Sustainability)

- Describes how the compensatory mitigation project will be managed after performance standards have been met.
- Identifies annual cost estimates.
- Identifies long-term financing mechanisms.
- Identifies qualified responsible party (permittee by default).

10. Long-Term Management (cont'd)

Project Name:	Acres:	State (or state equivalent):
Working Forest Easement	600	Northeast

Site Protection Monitoring and Easement Stewardship			
Annual Cost Subtotal (see Tab 2 for details)		$	1,148.47
Contingency (10-20%)	15%	$	172.27
Administrative (min 10%)	10%	$	132.07
Annual Cost Total (includes Option B Legal Defense Costs):		$	1,452.81
Capitalization Rate:	4.55%		
Option A: Legal defense fund contribution		$	5,000.00
Total Fund Principal Needed for Site Protection Monitoring and Easement Stewardship:		**$**	**36,929.90**

Land Management and Maintenance			
Annual Cost Subtotal (see Tab 3 for details)		$	91.72
Contingency (10-20%)	15%	$	13.76
Administrative (min 10%)	10%	$	10.55
Annual Cost Total:		$	116.03
Capitalization Rate:	4.55%		
Total Fund Principal Needed for Land Management and Maintenance:		**$**	**2,550.02**
Overall Total Fund Principal Needed:		**$**	**39,479.92**

The Nature Conservancy May 2016

Describe funding mechanisms:

- Non-wasting endowments, trusts, contractual arrangements with future responsible parties.
- Address inflation & other contingencies.
- Fencing, signage, prescribed fire management, water-control structures maintenance, resource inventories, inspections, species management, encroachment, vandalism protection

11. Adaptive Management Plan

- Adaptive management is a systematic process in which modifications to a mitigation plan, including monitoring, maintenance, and contingency plans, are made based on what has or has not been effective.
- Adaptive management is a feedback loop in which monitoring information is used to determine how site management may be adjusted if the project's performance standards are not being met. And it is most often implemented when unforeseen circumstances result in problems that a mitigation plan has not addressed.
- Adaptive management involves the Sponsor and the Corps, in coordination with the IRT, discussing the problems and possible solutions or alternative approaches.
- In some cases, adaptive management may result in a change in project goals, objectives, or performance standards due to unanticipated conditions.

- Examples: floods, droughts, herbivory, unexpected site conditions.

12. Financial Assurances

Financial mechanism to ensure that:

- Project is completed
- Resources are available to correct projects that don't meet performance standards, or replace unsuccessful projects

Long-term management funding is a separate mechanism.

- Site protection monitoring and easement stewardship
- Land Management and Maintenance

Financial Assurances Summary

- There are number of options available for establishing financial assurances.
- Mitigation provider is responsible for proposing the assurance mechanism.
- Assurances limit but CANNOT eliminate risk of failure.
- Corps cannot be the beneficiary of assurances, but approves the plan.
- Work on financial assurances should begin early in the process.

Permit Requirements for Mitigation Plan

Individual permits (Standard Permits and Letters of Permission)

- Final mitigation plan must be approved prior to permit issuance

Minor permits (General Permits, Nationwide Permits)

- Permit conditions may supplement mitigation plan
- Final mitigation plan must be approved prior to initiating work

If using mitigation bank or in-lieu fee program, provide only:

- Baseline (impact) information
- Determination of credits
- Statement of credit availability

Compensatory Mitigation Summary

Mitigation is a sequential process: 404(b)1 guidelines:
Avoid
Minimize
Provide for compensatory mitigation for unavoidable impacts to wetlands

Mitigation Rule:
"Levels the playing field" by requiring 12 mitigation plan components for ***all*** types of compensatory mitigation (mitigation banks, in-lieu fee, and permittee-responsible)
Establishes a watershed-based preference hierarchy for compensatory mitigation
Requires financial assurances for **both** mitigation project implementation **and** long-term management

Compensatory Mitigation Reporting

Permitees are responsible for:

Monitoring mitigation annually for a ***minimum*** of 5 years

Reports that are:

- Accurate and concise,
- provide overview of site conditions and functions, and
- provide information on how the site is meeting performance standards.

Reporting actions taken using adaptive management.

Submitting monitoring reports until released by the Corps.

Mitigation Compliance

Permitees are responsible for:

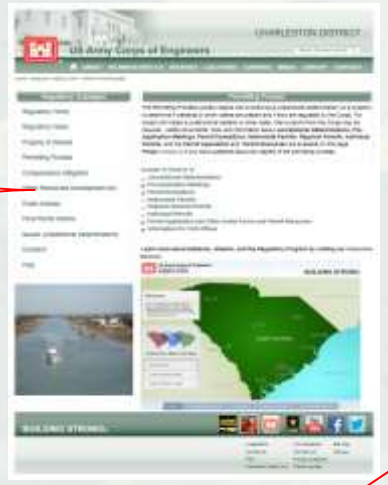
Complying with all of the permit terms and conditions.

Maintaining permittee-responsible mitigation in perpetuity beyond the monitoring period.

Corps District Regulatory Division Website

BUILDING STRONG

http://www.sac.usace.army.mil/



Collapse All Expand All

- Compensatory Mitigation Documents and Resources
- RIBITS- Regulatory In-lieu Fee and Bank Information Tracking System
- Mitigation Banking Information and Documents

Corps District Regulatory Division Website continued

Collapse All Expand All

Compensatory Mitigation Documents and Resources

The below documents and resources will provide you with information about compensatory mitigation, including the Charleston District's Guidelines for Preparing a Compensatory Mitigation Plan, Requirements for a Mitigation Plan, and the 2008 Final Compensatory Mitigation Rule.

- 2008 Final Compensatory Mitigation Rule
- Click here for instructions to access the current list of South Carolina Mitigation Banks
- Requirements for a Mitigation Plan
- Permittee-Responsible Mitigation Plan Template
- Guidelines for Preparing a Compensatory Mitigation Plan
- Model Restrictive Covenants
- Model Conservation Easement
- Minimum Monitoring Requirements for Compensatory Mitigation Projects- RGL 08-03
- Use of Financial Assurances and Performance Bonds- RGL 05-01
- Additional Compensatory Mitigation information available on the USACE Headquaters website

Electronic Wetland Mitigation Worksheets

- Minimum Upland Buffer Width Table
- Proposed Wetland Mitigation Table
- Required Wetland Mitigation Credit Table and Worksheet
- Wetland Mitigation Summary Worksheet

Electronic Stream Mitigation Worksheets

- Required Stream Mitigation Credit Table and Worksheet
- Stream Mitigation Summary Worksheet
- Stream Restoration Mitigation Factors

RIBITS- Regulatory In-lieu Fee and Bank Information Tracking System

RIBITS is an interactive web-based compensatory mitigation tracking system. RIBITS allows the public to find and track the status of USACE approved In-lieu Fee programs and Mitigation Banks in South Carolina. It provides up-to-date information about the availability of compensatory mitigation credits that may be purchased to offset adverse impacts that are authorized by Department of the Army permit. Please note that RIBITS is a national database and includes information about other types of Federal and State mitigation programs. In order to view information about stream and wetland mitigation in South Carolina you will need to select Charleston District from the list of USACE Districts on the **RIBITS Home Page**.

Mitigation Banking Information and Documents

A mitigation bank is a site where resources (e.g., wetlands, streams, riparian areas) are restored, enhanced, and/or preserved for the purpose of providing compensatory mitigation for impacts authorized by Department of the Army permits. The U.S. Army Corps of Engineers regulates resources including wetlands and streams under Section 404 of the Clean Water Act and in some cases Section 10 of the Rivers and Harbors Act. The measure of aquatic functions is based on the resources restored, enhanced, or preserved.

Mitigation banking can play a significant role in the regulatory program administered by the U.S. Army Corps of Engineers. Banking programs reduce uncertainty and delays for all parties involved and improve the success of compensatory mitigation and conservation efforts. Project proponents in need of "mitigation" to offset unavoidable authorized impacts to regulated resources may have the option of purchasing credits from an approved mitigation bank rather than restoring or preserving these resources on or near the development site. When authorized impacts are located within the service area of an approved mitigation bank and the bank has the appropriate number and resource type of credits available, the permittee's compensatory mitigation requirements may be met by acquiring those credits from the bank sponsor.

Mitigation banks require establishment of a formal agreement between the Army Corps of Engineers and the bank sponsor. The bank sponsor can be a government agency, a corporation, a private landowner, a nonprofit organization or a tribe that will undertake responsibility for the restoration or preservation activities associated with the bank. The value of a bank's resources is measured in credits, which are units of measure representing the attainment of aquatic resource function or services at the bank site.

- Mitigation Bank Prospectus Template
- Mitigation Banking Instrument Template
- Timeline for Bank or In-Lieu Fee Instrument Approval
- 2016 IRT Meeting Schedule
- Interagency Review Team Contact Information
- Available Escrow Needs For Prospective Mitigation Bankers

RIBITS (Regulatory in-lieu fee and Bank information Tracking System)

http://geo.usace.army.mil/ribits/index.html

- Great source for National and District Mitigation Guidance.
  - Bank Development
  - Assessment Methods
  - Announcements
- For permit applicants to locate available mitigation
- Provides bank specific information for both banks under review and authorized: contacts, credits, images, bank location, service area, complete prospectus, public notice, mitigation banking instrument, monitoring reports for each bank.

Questions

Identify the problem > propose a solution > demonstrate success through monitoring